



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

GEOLOGY.

A New Edition of Dana's Geology. — Dana's *Revised Text-Book of Geology*¹ has recently appeared in a dress that is much more attractive than that so familiar in earlier editions. Professor Dana had begun a revision of the work a short time before his death. The completion of the revision has been undertaken by Prof. W. N. Rice, of Wesleyan, and with great success. The distinctive characteristics of earlier editions have been retained in the new edition, but the volume has been modernized by the replacement of the old zoological and botanical classifications by those adopted in recent manuals, by a fuller recognition of the theory of evolution as a working hypothesis in paleontology, and by a modification of earlier statements concerning metamorphism. The ending *yte* for rock names has also been abandoned for the more usual *ite*.

In his preface to the new edition the editor declares that he undertook the revision with the understanding that the book "was to be brought down to the present time as regards its facts, but it was still to express the well-known opinions of its author." That he was the right man for the delicate task of "editing" this, the most popular of Dana's works, is abundantly proven by the excellence of the new book. It still presents all of its author's well-known views on debatable questions, and yet is, in the main, a splendid compendium of the truths of geology as now accepted by conservative students of the science.

In one or two points only can ultra conservatism be charged. The Archean remains undivided, no distinction having been made between the typical clastic pre-Cambrian rocks and the series of crystalline schists that lie unconformably beneath these, — a distinction that is now made by nearly every geologist who has worked in undoubted pre-Cambrian regions.

With respect to the treatment of the topic metamorphism the same fault may be found. The editor leaves the impression on the reader's mind that nearly all the gneisses, mica-schists, etc., are recrystallized sedimentary rocks, though, it is true, he declares that in some cases they may be produced from plutonic rocks. He also suggests that granite itself may be of metamorphic origin, in spite of the fact that no specialist in the study of rocks has ever

¹ Dana, James D. *Revised Text-Book of Geology*. Fifth edition. Revised and enlarged. Edited by William North Rice. American Book Company, 1897. ix + 482 pp., 464 ill.

discovered any evidence that this is the case. Unfortunately the distinction between bedding and schistosity is not made clear. The secondary structure, by inference at any rate, is made coincident with the primary one, for we read that "the presence of a schistose structure is not always proof of origin from sediments."

Of course Professor Rice had a very difficult position to fill. He has filled it well, and yet we wish for the sake of the students who will use the revised text-book that he had departed a trifle more from Professor Dana's views, and incorporated in the book the latest results of investigations upon the oldest rocks of the globe and on metamorphism.

W. S. B.

MINERALOGY.

The Fourth Edition of Fuchs's Determinative Mineralogy.¹—

Although the *Anleitung zum Bestimmen der Mineralien*, by Prof. Dr. C. W. C. Fuchs, was first published thirty years ago, and has since been revised by Professors Streng and Brauns, the well-known volume still preserves its original excellent features. The third edition was published only eight years ago. Since this time there has been so much added to our knowledge of minerals that a fourth edition has been demanded. Dr. Brauns, who is responsible for the new edition, is eminently fitted for the work that has devolved upon him, and the new volume that has been brought out under his direction is fully abreast of the times.

There has been little change made in the sections treating of blowpipe and microchemical reactions except such as are necessitated by the progress of knowledge during the past decade. The tables for the determination of minerals, however, have been entirely reconstructed. The minerals are no longer separated into groups according to their crystal systems, but are divided according to hardness. These groups are further divided into two classes, *viz.*, minerals with metallic luster and those without metallic luster. The metallic minerals are next subdivided according to color, and the non-metallic ones according to the color of their streak. The cleavage, crystal form, and manner of occurrence serve further as distinguishing characteristics, and simple chemical tests are made use of for pur-

¹ Fuchs, C. W. C. *Anleitung zum Bestimmen der Mineralien*. Vierte Auflage, neu bearbeitet, von Dr. Reinhard Brauns. Giessen, J. Ricker, 1898. xii + 235 pp.